REMARKS

The present response is to the Office Action mailed in the above-referenced case on June 23, 2005. Claims 31-36 are presented for examination. Claims 31, 34, 35 and 36 are objected to by the Examiner. Claims 31-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Cao et al. (US 6,721,269) hereinafter Cao.

Applicant has carefully studied the prior art presented by the Examiner in this case, and the Examiner's statements in the instant Office Action. In response, applicant herein amends the necessary claims in order to overcome the Examiner's objections. Applicant also provides strong arguments which clearly show the art of Cao fails to teach all of subject matter contained in applicant's claims, as recited.

Cao, in general, teaches a routing system between nodes wherein a primary path is selected and one secondary path is created to be used when/if a failure is detected in the primary path.

The Examiner states that Cao teaches a network connected by a plurality of parallel links (e.g., see col. 6, lines 1-23), a method for routing packets through the sub-network and the parallel links while ensuring in-order delivery for unique packet flow defined by unique source/destination pairs, comprising the steps of: (a) creating a sufficient number of label-switched paths (LSPs) (e.g., S-A-B-E and S-C-D-E, see col. 6, lines 1-23) from the ingress node (e.g., LSRS) to the egress node (e.g., LSRE) that each packet flow may have a unique LSP (e.g., see cal. 6, lines 16-23; and col. 8, lines 37-41); and (b) associating each packet flow with one of the created LSPs (e.g., see col. 10, line 1, col. 11, line 15 regarding primary ERLSP, S-A-B-E, comprising a selected flow, and a secondary or backup regarding primary ERLSP, S-A-B-E, comprising a selected flow, and a secondary or backup ERLSP comprising a protected/backup/secondary flow).

Applicant argues that each packet flow in the art of Cao does not have an assigned unique LSP as claimed. Cao specifically teaches a plurality (two) of explicitly routed label switched paths, paths S-A-B-E, and S-C-D-E in the example of FIG. 1, are established from the ingress router, that is, router S, to the egress router, router E. Once

both paths are established, datagrams are transmitted along both paths, with the egress router choosing the one of the paths as its primary source of datagrams. Should the primary path fail, due for example to a cut fiber along the S-A-B-E path, router E switches to a secondary route, the S-C-D-E route in this example. Cao teaches that multiple datagrams are sent on the primary path, wherein the secondary path is only utilized when the primary fails. Clearly, Cao fails to teach a unique LSP for each packet flow as claimed.

Regarding claims 32 and 35, applicant herein amends the claims to positively recite that the number of LSPs created is equal to the least-common multiple of the number of links between each individual node in the node path, wherein the number of links between nodes are not equal.

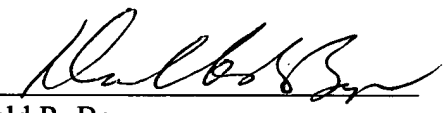
The Examiner states that Cao teaches the number of LSPs created (e.g., two, S-A-B-E and SC-D-E, see col. 6, lines 5-10) is equal to the least-common multiple of the number of links between each individual node in the node path (e.g., two, wherein each of nodes in node paths in FIG. 1 include at least two links, noting that LSRF is not included in node path).

Applicant argues that Cao teaches a primary LSP and a secondary LSP between each node wherein the count is always two links. In applicant's invention the desire is to distribute the traffic evenly across all the links, without producing out-of-order delivery. Applicant's specification teaches that the number of LSPs needed to create the path from the ingress router A to the egress router I is equal to the least common multiple (LCM) of the number of links on each individual hop. For example, for the path A-B-G-I, the number of links on the A-B hop is 5, the number of links on the B-G hop is 3, and the number of links on the G-I hop is 2. Therefore, the number of LSPs generated for the A-B-G-I path should be a minimum of the least common multiple (LCM) of 5, 3 and 2; LCM (5,3,2) = 30. The A-B hop would divide the 30 LSPs into five groups of six; the B-G hop would divide the 30 LSPs into three groups often; and the G-I hop would divide the LSPs into two groups of fifteen.

Applicant argues that the art of Cao falls short of teaching the load balancing effect of the LCM method as described and claimed in applicant's invention. Applicant believes claims 31 and 34 are patentable as argued above. Claim 32, as amended, and claims 33, 35-36 are patentable on their own merits, or at least as depended from a patentable claim.

It is therefore respectfully requested that this application be reconsidered, the claims be allowed, and that this case be passed quickly to issue. If there are any time extensions needed beyond any extension specifically requested with this amendment, such extension of time is hereby requested. If there are any fees due beyond any fees paid with this amendment, authorization is given to deduct such fees from deposit account 50-0534.

Respectfully Submitted,
John K. Renwick et al.

by 
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